



Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Location: \_\_\_\_\_

Contact/Phone: \_\_\_\_\_

# 4" IC 900 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

IC 1 LED (G4 09LM) RECESSED HOUSING

**OPEN TRIMS**

## PRODUCT DESCRIPTION

Dedicated LED, Air-Loc® sealed new construction housing with integral light engine • Double wall, shallow housing construction allows for fit in 2 x 6 construction • Can be completely covered with insulation • Fully sealed housing stops infiltration and exfiltration of air, reducing heating and air cooling costs without the use of additional gaskets • LED housing is designed to provide 50,000 hours of life and is compatible with many standard Juno trims • 5 year limited warranty on LED components.

## ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- No harmful ultraviolet or infrared wavelengths
- No lead or mercury, RoHS compliant
- Comparable light output to 75W incandescent

## PRODUCT SPECIFICATIONS

**LED Light Engine** LED array attached to high purity aluminum, thermally conductive inner housing provides superior heat transfer to ensure long life of the LED • Replaceable light engine mounts directly to inner housing assembly and incorporates the latest generation, high lumen output LED array • LEDs are binned within a 3-step MacAdam Ellipse exceeding ENERGY STAR® requirements for superior fixture to fixture color uniformity • 2700K, 3000K, 3500K, or 4000K color temperatures available • 90 CRI minimum.

**Optical System** Two field interchangeable optics available in medium flood (45° beam angle) and wide flood (65° beam angle) • Computer-optimized reflector design with high reflectance finish coupled with a high transmission diffusing lens conceals the LEDs and produces uniform aperture luminance • Deep regression of lens produces a low glare, efficient system that can produce over 900 lumens with select trims (see page 2 for details) using less than 12W\*

**Aesthetic Trim Selections** Compatible with wide selection of existing Juno trims • Shadow free, knife edge design blends seamlessly into ceiling.

**LED Driver** Choice of dedicated 120 volt (120) driver or universal voltage (MVOLT) drivers that accommodate input voltages from 120-277 volts AC at 50/60Hz • Power factor > 0.9 at 120V input • 120 volt only driver is dimmable with the use of most incandescent, magnetic low voltage and electronic low voltage wall box dimmers • Universal voltage drivers are dimmable with the use of most 0-10V wall box dimmers • For a list of compatible dimmers, see [JUNOICLED-DIM](#) • Mounted inside housing for easy access from below ceiling.

**Life** Rated for 50,000 hours at 70% lumen maintenance.

**Labels** ENERGY STAR® Certified when used with select trims • Can be used to comply with 2019 Title 24, Part 6, JA8 high efficacy LED light source requirements with select trims • UL listed for U.S. and Canada through-branch wiring, damp locations • Union made • UL and cUL • CP option is compatible with spray foam insulation with an R-value of 3.2 per inch or less.

**Testing** All reports are based on published industry procedures; field performance may differ from laboratory performance.

Specifications subject to change without notice.

## HOUSING FEATURES

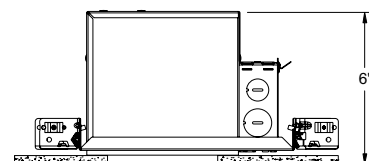
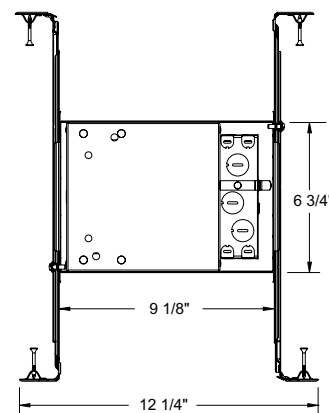
**Housing** Designed for use in IC (insulated ceiling) or non-IC construction • Aluminum housing sealed for Air-Loc® compliance • Housing is vertically adjustable to accommodate up to a 1 1/2" ceiling thickness.

**Junction Box** Pre-wired junction box provided with (6) 1/2" and (1) 3/4" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 4 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts equipped with pryout slots • Quick connect electrical connectors supplied as standard for fast, secure installation.

**Mounting Frame** 22-gauge die-formed galvanized steel mounting frame • Rough-in section (junction box, mounting frame, housing and bar hangers) fully assembled for ease of installation.

**Real Nail 3 Bar Hangers** Patented (US Patent D552,969) Real Nail® 3 bar hangers: telescoping system permits quick placement of housing anywhere within 24" O.C. joists or suspended ceilings • Includes removable nail for repositioning of fixture in wood joist construction • Integral T-bar notch and clip for suspended ceilings.

## DIMENSIONS



4 1/2" CEILING CUTOUT

\* Nominal input wattage @ 120-volt operation with dedicated 120-volt driver under stable operating conditions.

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## ELECTRICAL DATA

### Dedicated 120V Only Driver Option (120 FRPC)

120V	
Input Power	11.6W (+/-5%)
Input Current	0.10A
Frequency	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class B (residential)
Minimum starting temp	-25°C

## ELECTRICAL DATA

### Universal Voltage

	MVOLT EZ10 and EZ1		MVOLT ZT10 and ZT1	
	120V	277V	120V	277V
Input Power	11.2W (+/-5%)	12.2W (+/-5%)	11.2W (+/-5%)	12.2W (+/-5%)
Input Current	0.10A	0.05A	0.10A	0.05A
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class B (residential)	FCC Title 47 CFR, Part 15, Class B (residential)	FCC Title 47 CFR, Part 15, Class B (residential)	FCC Title 47 CFR, Part 15, Class B (residential)
Minimum starting temp	-20°C	-20°C	-20°C	-20°C

## ORDERING INFORMATION

Housing and trim can be ordered together or separate, but will always ship separately.

Example: IC1LED G4 09LM 27K 90CRI 120 FRPC

Series	Generation	Lumens	Color Temperature	CRI	Distribution
IC1LED 4" LED IC New Construction Downlight	G4 Generation 4	09LM 900 Nominal Lumens	27K 2700K 30K 3000K 35K 3500K 40K 4000K	90CRI 90+ CRI	(blank) Medium Flood (45°) WFL Wide Flood (65°)

Voltage/Driver	Territory
120 FRPC 120V Forward/Reverse Phase Cut, 5% dim	CP Chicago Plenum
MVOLT ZT10 Multi-Volt (120-277), 0-10V, 10% dim	
MVOLT ZT1 Multi-Volt (120-277), 0-10V, 1% dim	
MVOLT EZ10 Multi-Volt (120-277), eldoLED 0-10V, 10% dim	
MVOLT EZ1 Multi-Volt (120-277), eldoLED 0-10V, 1% dim	



A+ Capable options indicated by this color background

## Trim/Description

	13 WH	4" Pinhole with Integral Shield - White
	14 BBRZ <sup>1</sup>	4" Downlight Baffle Trim - Black Baffle, Bronze Trim Ring
	14 BBL <sup>1</sup>	4" Downlight Baffle Trim - Black Baffle, Black Trim Ring
	14 BSC <sup>1</sup>	4" Downlight Baffle Trim - Black Baffle, Satin Chrome Trim Ring
	14 BWH <sup>1</sup>	4" Downlight Baffle Trim - Black Baffle, White Trim Ring
	14 WWH	4" Downlight Baffle Trim - White Baffle, White Trim Ring
	17 BWH	4" Downlight Cone Trim - Black Cone, White Trim Ring
	17 CWH	4" Downlight Cone Trim - Clear Alzak® Cone, White
	17 HZWH	4" Downlight Cone Trim - Haze Cone, White Trim
	17 PTSC	4" Downlight Cone Trim - Pewter Cone, Satin Chrome Trim
	17 WHZBRZ	4" Downlight Cone Trim - Wheat Haze Cone, Bronze Trim Ring
	17 WHZWH	4" Downlight Cone Trim - Wheat Haze Cone, White Trim
	17 WWH	4" Downlight Cone Trim - White Cone, White Trim Ring

Trim Size: 5" O.D.

Alzak is a registered trademark of Alcoa Corp.

Note: In Canada when insulation is present, Type IC fixtures must be used.

<sup>1</sup> Multi-Volt: T24 @ 30K, 35K, 40K only

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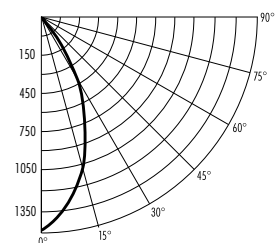
## PHOTOMETRICS

### PHOTOMETRIC REPORT

Test Report #: PT02141303R  
Catalog No: IC1LED G4 09LM 35K  
90CRI 120 with 14 WWH Trim

Luminaire Spacing Criterion: 0.72

Luminaire LPW: 81



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1491
5	1449
15	1118
25	600
35	206
45	54
55	22
65	10
75	6
85	1
90	0

Multiplier: 27K - 0.89  
30K - 0.94  
40K - 1.03

### AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	65	57	50
5.0'	42	36	32
6.0'	29	25	22
7.0'	23	20	18
8.0'	18	16	14
9.0'	14	12	11
10.0'	10	9	8

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	717	N/A	76.5
0-40°	852	N/A	91.0
0-60°	917	N/A	98.0
0-90°	936	N/A	100.0

### INITIAL FOOTCANDLES (One Unit, 11.6W, 44.2° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	93.2	3.2'
6	41.4	4.9'
8	23.3	6.5'
10	14.9	8.1'

### LUMINANCE (Average cd/m²)

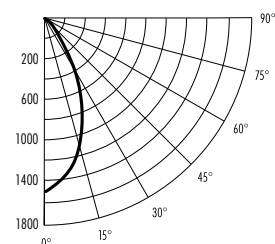
Degrees	Average Luminance
45	12517
55	6382
65	4034
75	4069
85	2014

### PHOTOMETRIC REPORT

Test Report #: LTL26327R  
Catalog No: IC1LED G4 09LM 35K  
90CRI 120 with 17 CWH Trim

Luminaire Spacing Criterion: 0.70

Luminaire LPW: 85



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1508
5	1482
15	1104
25	620
35	254
45	82
55	26
65	3
75	0
85	0
90	0

Multiplier: 27K - 0.89  
30K - 0.94  
40K - 1.03

### AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	68	59	52
5.0'	44	38	33
6.0'	30	26	23
7.0'	25	21	19
8.0'	19	17	15
9.0'	15	13	11
10.0'	11	10	8

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	725	N/A	73.9
0-40°	887	N/A	90.5
0-60°	977	N/A	99.6
0-90°	981	N/A	100.0

### INITIAL FOOTCANDLES (One Unit, 11.6W, 43.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	94.3	3.2'
6	41.9	4.8'
8	23.6	6.4'
10	15.1	8.1'

### LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	18733
55	7144
65	1077
75	0
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.